

lacks the force to drive technology and services. Basic Rate ISDN, a technology requiring enhanced BOC loops, took several years to deploy because the BOCs had exclusive control of the local network.<sup>16</sup> Primary Rate ISDN, on the other hand, served by a multitude of service providers in a competitive environment, was widely deployed in the early 1990s.

The current fervor now surrounding xDSL is the result of several factors: its application for Internet access; continued innovation that has led to greater equipment and more reasonable equipment prices.<sup>17</sup> The industry is just now witnessing the benefits of cost reductions in access technologies due to multiple service providers' requests and interest in providing these enhanced services. Bell Atlantic and other BOCs are trying to capitalize on the progress the industry has gained to date and obliterate any market advantage for consumers where there are multiple service providers of xDSL-based services.<sup>18</sup>

### **C. The BOCs will not Assume Extraordinary Risks with xDSL-Based Services**

Although Bell Atlantic claims that investments in high-speed data services are "fraught

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<sup>16</sup> "Rates 'in the Stratosphere;' US West Withdraws ISDN Tariff After Consumers Raise Clamor," *Communications Daily*, March 2, 1996 (Arizona Corporation Commission spokesman states US West has been slow to provide ISDN in the face high demand for several years: "Foot dragging is the phrase that comes to mind.").

<sup>17</sup> Cite BA and US West petitions.

<sup>18</sup> The delay in xDSL deployment is generally due in part to technology maturity, integration with other systems, and customer demand. When a technology is developed, it is typically an enhancement to an existing product (like xDSL enhances existing copper loops), or it is a new technology requiring the developments of other elements in order to make it work. The DSL technologies are in various stages of commercialization. ADSL technologies, for example, are in the final stages of standardization and deployment issue resolution. ADSL incorporates a new modulation scheme on the transmission layer to deliver the signal. Other local loop technologies, such as G.lite and VDSL, are in the earlier stages of standardization, development and commercialization.

with risk,”<sup>19</sup> it has not incurred, and will not incur, any substantial risks in connection with xDSL. Bell Atlantic raises the BOC argument once again contends that forward-looking pricing will not give it any incentive to invest in technology.<sup>20</sup> The Commission has already considered the economic impact of its pricing rules on the BOCs, and concluded that its “cost-based pricing methodology . . . is designed to permit incumbent LECs to receive their economic costs of providing interconnection and unbundled elements . . .”<sup>21</sup> Indeed, the states were explicitly authorized to establish unbundled network element prices using a risk-adjusted cost of capital reflecting particular business risks.<sup>22</sup> Bell Atlantic and the other, therefore, have federal and state avenues through which to ensure that their costs are fully recovered. MCI believes Bell Atlantic and the BOCs are simply exaggerating the level of financial risk and thus disincentive involved with access to innovation to justify regulatory forbearance.

Moreover, the authorized interstate rate of return is 11.25 percent.<sup>23</sup> A return at this level is more than sufficient to protect any BOC’s investments - especially given the fact that these are small incremental investments in remote and central office ADSL equipment that can be made in response to actual demand. Further, the deployment of xDSL will permit the BOCs to avoid

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<sup>19</sup> BA Petition at 2.

<sup>20</sup> Local Competition Order, para. 638 (“ . . . incumbent LECs argue that setting prices based on the forward-looking economic cost of the element . . . will discourage efficient entry and useful investment by both incumbent LECs and their competitors.”)

<sup>21</sup> Local Competition Order, para. 697. MCI also notes that the Commission’s pricing rules were stayed almost immediately after the release of the Local Competition Order.

<sup>22</sup> Id. at para. 702.

<sup>23</sup> See Represcribing the Authorized Rate of Return for Interstate Local Exchange Carriers, CC Docket No. 89-624, FCC 90-315 (rel. Dec. 7, 1990).

other investments that they would need to make to upgrade end offices to handle the growing number of dial-up connections to the Internet. Rather than make lump sum investments, the BOCs need only make incremental investments in response to customer demand. These switch upgrades are in response to an increase in second lines and longer hold times in connection with consumer demand for dedicated Internet access. Consumers are buying record numbers of second lines dedicated to their computers, Internet and/or home office, which evinces an interest in separated local service and Internet access.

Contrary to what Bell Atlantic appears to believe, the ability to charge a supracompetitive price will not lead to innovation. Innovation will follow only where pricing is competitive. Setting high prices makes innovative services less affordable for consumers. ISDN service, for example, while widely available, is too expensive for the majority of potential customers. Similarly, if regulators require BOCs to charge below-cost rates, innovation will be deterred. The BOCs, however, are facing no such prospect, and make no claim that any state regulator has required them to set prices for xDSL-related UNEs that are below cost. Nevertheless, the BOCs seek to have the applicability of Section 251(c ) nullified as a means to earn supracompetitive profits from data services. The Commission has already concluded that BOCs need only earn opportunity costs of capital, not monopoly, returns.<sup>24</sup> To allow Bell Atlantic to charge supracompetitive prices will depress demand and cannot help innovation.

As discussed above, every request for forbearance made by Bell Atlantic must be judged in accordance with the forbearance requirements contained in Section 10(d). Accordingly, Bell Atlantic's requests for relief from mandatory access requirements and price-cap regulations must

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<sup>24</sup> Local Competition Order, para. 699.

be denied as Bell Atlantic has not opened its local market in compliance with the requirements under Section 251(c ) of the Act, nor have any of the BOCs received the requisite interLATA authority from the Commission under Section 271 of the Act. Moreover, forbearance from the price cap requirements cannot satisfy two of the three determining factors, as explained above in Section IV.A., to be examined by the Commission under Section 10(a). Specifically, the granting of price cap forbearance cannot satisfy 10(a)(1) and 10(a)(2) because it would permit the Bell Atlantic to engage in above-cost pricing that is neither a reasonable practice nor protective of consumers. 47 U.S.C. § 10(a)(1)-(2).

#### **IV. THE COMMISSION LACKS AUTHORITY TO GRANT THE FORBEARANCE REQUESTED BY THE BOCS**

Bell Atlantic's petition requesting forbearance is premature and improper under the Act. Any exercise of regulatory forbearance under Section 706 should be consistent with the forbearance limitations contained in Section 10, codified at 47 U.S.C. § 160 in the Act. Accordingly, Section 10(d) of the Act prohibits forbearance from the application of the requirements of Sections 251 and 271. In addition, the Commission lacks authority to forbear from applying Section 272's separate subsidiary requirements. Even so, despite Bell Atlantic's argument to the contrary and the simple fact that the requested forbearance cannot be granted by the Commission, the requested relief is not necessary to speed the deployment of advanced telecommunications services.

##### **A. Bell Atlantic's Petitions are Inappropriate under Section 706 of the Act and Request Relief that Cannot be Granted by the Commission**

Bell Atlantic's petition requesting regulatory forbearance is unnecessary and premature.<sup>25</sup>

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<sup>25</sup> Bell Atlantic's petition is premature because the Commission is seeking comments on a broader yet similar petition, which requests the Commission to issue a Notice of Inquiry and a

Although, Bell Atlantic argues that the Commission should exercise its forbearance authority under section 706, the petitions must be evaluated in accordance with the Act's provisions concerning forbearance: Section 10.<sup>26</sup> Section 706 of the Act only references forbearance authority that permits the Commission to exercise "regulatory forbearance . . . or other regulating methods that remove barriers to infrastructure investment" in order to encourage the deployment of advanced telecommunications services. As stated above, granting the petitioners' forbearance requests would allow the BOCs to exercise monopoly control over advanced telecommunications services, resulting in the exact opposite of the goals contained in Section 706 of the Act: widespread, rapid deployment of advanced telecommunications services. Regardless, the relief sought by Bell Atlantic, however, it is explicitly prohibited from waiver or forbearance.

Although Section 706(a) states that the Commission "shall encourage the deployment" of advanced telecommunications to "all Americans," Section 706(a) places specific emphasis on the timely deployment of such services to "in particular, elementary and secondary schools and classrooms." 47 U.S.C. § 706(a). Given that focus, it is hard to imagine that Congress intended -- as Bell Atlantic would have the Commission believe -- Section 706's reference to regulatory forbearance to override the specific limitations on forbearance contained in Section 10, and not just for schools and classrooms but for all consumers.

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Notice of Proposed Rulemaking to implement Section 706. See Petition of the Alliance for Public Technology Requesting Issuance of Notice of Inquiry and Notice of Proposed Rulemaking to Implement Section 706 of the 1996 Telecommunications Act, Public Notice, RM 9844, CCB/CPD 98-15 (rel. Mar. 12, 1998). Further, the petition is premature due to the fact that the Commission previously announced that it will conduct such an inquiry under Section 706. See Federal-State Joint Board on Universal Service, FCC 97-157, CC Docket No. 96-45 (rel. May 8, 1997) (Report and Order) at para. 605.

<sup>26</sup> 47 U.S.C. § 160(d).

Contrary to Bell Atlantic's argument,<sup>27</sup> Section 706 is not an independent grant of forbearance authority. Rather, Section 706 merely refers to the Commission's forbearance authority, which is contained in Section 10 of the Act. Section 10, is the general provision of the Act that addresses regulatory forbearance and its applicable limitations. In Section 10(d), Congress laid out specific limitations on the Commission's forbearance authority. Nothing in Section 706 indicates that Congress intended this provision to override those limits in Section 10(d). That is especially true because a BOC like Bell Atlantic is seeking to create an open-ended, ill-defined loophole - an exception that could swallow a significant portion of the rule - since the same local network carries both voice and data traffic.

Further, Section 10 demonstrates that where Congress did intend to override specified limits on forbearance authority, it did so expressly. For example, Section 332(c)(1)(A) provides that the Commission could forbear from enforcing most regulations against mobile carriers but prohibited it from forbearing to enforce specified requirements (Sections 201, 202 and 208). In Section 10, Congress expressly overrode those limitations by stating "[n]otwithstanding Section 332(c)(1)(A) of this title, the Commission shall forbear from applying any regulations or any provisions of this chapter . . ." 47 U.S.C. § 160(a).

Section 10 is not a "generic" forbearance provision with no connection to the regulatory forbearance mentioned in Section 706. The argument that Section 706 is an independent grant of forbearance authority to the Commission is misguided and inconsistent with well-established principles of statutory interpretation. The basic principle of statutory construction prohibits interpreting one statutory provision in such a manner as to render other related provisions

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<sup>27</sup> Bell Atlantic Petition at 10.

meaningless or superfluous.<sup>28</sup> In Greenpeace, Inc., v. Waste Technologies Indus., 9 F.3d 1174 (6th Cir. 1993), the court stated that congressional intent cannot be discerned “by reading an isolated subsection . . . without reference to other related provisions.” 9 F.3d at 1179. Further, the court held that terms cannot be interpreted “in a manner that renders other provisions of the same statute inconsistent, meaningless, or superfluous.” *Ibid.* Bell Atlantic is requesting that the Commission interpret Section 706 in a way that would contradict and render meaningless the very terms contained within the single provision of Section 706(a). Indeed, Bell Atlantic attempts to interpret the latter portion of 706(a), which contains the phrase “other regulating methods,” as overriding the earlier phrase “regulatory forbearance.” The two phrases cannot be interpreted and reconciled in such a manner. “Regulatory forbearance” must be granted only as permitted under Section 10.<sup>29</sup>

MCI is not asking the Commission to ignore Section 706’s important policy preference for the deployment of advanced telecommunications “to all Americans, (including, in particular, elementary and secondary schools and classrooms).” 47 U.S.C. § 706(a). To the contrary, MCI believes that the best way to encourage widespread availability of advanced telecommunications capability is to enforce Sections 251 and 271, applying the strict limitations contained in Section 10, as written so that competition develops at the local level. In particular, Section 271 creates

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<sup>28</sup> See Mackey v. Lanier Collections Agency & Serv., 486 U.S. 825, 837 (1988); Mail Order Ass’n of Am. v. United States Postal Serv., 986 F.d. 509, 515 (D.C. Cir. 1993); see also Gustafson v. Alloyd Co., Inc., 115 S. Ct. 1061, 1069 (1995) (“[T]he Court will avoid a reading which renders some words altogether redundant.”); see also 2A Sutherland Statutory Construction § 46.05 at 105 (5th ed. 1995) (“Where there is *inescapable* conflict between general and specific terms or provisions of a statute, the specific will prevail.”) (emphasis added).

<sup>29</sup> See S. Rpt. 104-23, 104th Cong., 1st Sess. 50-51 (1995). Section 303 of the Senate Bill, entitled “Regulatory forbearance,” became Section 10 of the Act, codified at 47 U.S.C. § 160.

the right incentive structure that will help the marketplace to work.

The petitioning BOC's interpretation of Section 706 as an independent grant of forbearance authority conflicts with the principles of statutory construction because it is inconsistent with the overall structure of the Act.<sup>30</sup> Bell Atlantic's contradictory reading of the phrase "regulatory forbearance" in Section 706 would render Sections 10, 251, 271 and 272 of the Act meaningless.<sup>31</sup> Congress included the strict limitations in Section 10(d) to control the types and degrees of forbearance afforded to the BOCs, in order to ensure that the requirements of Sections 251(c ) and 271 are not subverted or diminished prior to the BOCs meeting those statutory conditions. Accordingly, the Commission should interpret Section 706 in light of its purpose and the overall structure of the Act, refusing to grant forbearance from the requirements of Sections 251(c ) and 271 -- as mandated by Congress -- until it determines that such requirements have been fully implemented.

Moreover, regulatory forbearance, particularly the type contemplated in the BOC petitions, is unnecessary for innovation. As noted above, the competition in the new technologies marketplace will lead to rapid innovation and deployment of advanced telecommunications services without resorting to the regulatory forbearance requested by Bell

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<sup>30</sup> See generally Tataronowicz v. Sullivan, 959 F.d. 268, 276 (D.C. Cir 1992) ("[C]ongressional intent can be understood only in light of the context in which Congress enacted a statute and the policies underlying its enactment.")

<sup>31</sup> In fact, if Section 706 trumps all other provisions in the Act, including, as Bell Atlantic argues, the regulatory forbearance limitations set out in Section 10, then it should trump the limitations in the pricing provisions that the 8th Circuit inferred, and the FCC should exercise its power to require cost-based pricing of xDSL-related network elements. See Iowa Utilities Bd. v. FCC, No. 96-3321, 1998 U.S. App. LEXIS 1043 (8th Cir. Jan. 22, 1998) (writ of mandamus granted); Iowa Utilities Bd. v. FCC, 120 F.3d 753 (8th Cir. 1997), amended on reh'g, 1997 U.S. App. LEXIS 28652 (8th Cir. Oct. 14, 1997), cert. granted, 118 S. Ct. 879 (1998).



Atlantic. This critical juncture in local exchange competition requires a measured approach, not premature deregulation of incumbent monopolists.

Assuming *arguendo* the Commission should determine it needs to take steps to spur more rapid deployment of advanced telecommunications services, the Commission does not have authority to forbear from applying the requirements of Sections 251(c) and 271 “until it determines that those requirements have been fully implemented.” 47 U.S.C. § 160(d). Under Section 10(b) of the Act, before making any determination to apply regulatory forbearance, the Commission must consider “whether forbearance will promote competitive market conditions -- including the extent it will enhance competition among providers of telecommunications services.”<sup>32</sup> In addition, forbearance is to be granted by the Commission only where it determines that the following three requirements will be satisfied: (1) enforcement of such regulation is not needed to ensure just, reasonable and nondiscriminatory practices with respect to telecommunications carriers or the service in question; (2) enforcement of such regulation is not required for consumer protection; and (3) forbearance from applying such regulation is consistent with the public interest. 47 U.S.C. § 160(a)(1)-(3). As MCI explains in the instant comments, the three criteria from Section 10(a) cannot be met with respect to the regulatory forbearance requested by Bell Atlantic.

Although Section 706 of the Act permits the Commission to exercise “regulatory forbearance . . . or other regulating methods that remove barriers to infrastructure investment” (emphasis added) in order to encourage the deployment of advanced telecommunications services, as MCI has noted in the instant comments, granting the regulatory forbearance

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<sup>32</sup> See S. Rpt. 104-23, 104th Cong. 1st Sess. 50-51 (1995); see also 47 U.S.C. § 160(b).

requested by the petitioning BOC could effectively halt the cycle of innovation that currently exists in advanced telecommunications and hamper growth and new opportunities for user-driven industrial innovation. In addition, granting the requested forbearance to Bell Atlantic prior to full implementation of the Act's provisions contained in Sections 251, 271 and 272 would eliminate the incentive for the BOC to open its local market.

Chairman Kennard, in a recent speech, emphasized the serious competitive importance of Section 271.<sup>33</sup> Chairman Kennard expressed his belief that "competition beats regulation" in the telecommunications and technological revolution; however, he cautioned that Bell companies would "love to jump the gun if [they] could get away with it." The solution, Chairman Kennard explained, is Section 271: the "powerful incentive" given the BOCs to "open local markets."<sup>34</sup> Granting the requested forbearance would further strengthen the BOCs' monopolies permitting them to exercise exclusive control of network development.

**B. The Commission Lacks Authority to Forbear from Enforcing the Requirements of Section 272**

As mandated by Congress in Section 10(d) of the Act, in addition to lacking the requisite authority to forbear from applying the requirements of Sections 251 and 271, the Commission does not have authority to grant the petitioning BOCs' requests for forbearance from the Act's separate subsidiary requirements set forth in Section 272.<sup>35</sup> Because Section 10(d) prohibits

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<sup>33</sup> William E. Kennard, Chairman, Federal Communications Commission, Remarks to Legg Mason "Telecom Investment Precursors" Workshop (March 12, 1998).

<sup>34</sup> *Id.*

<sup>35</sup> See Bell Atlantic Petition at 17-18 ("Separate affiliate restrictions that hamper the efficient deployment of an advanced network further lessen the attractiveness of broadband investments").

forbearance from Section 271's requirements, the requirements and prohibitions under Section 272 must remain intact until Section 271 authority has been granted by the Commission. In a recent order, the Commission stated that it lacks authority to grant forbearance from the application of the separate affiliate requirements of Section 272.<sup>36</sup>

Under the prohibitions and requirements of Section 271, a BOC has authority to provide in-region interLATA service under only three circumstances: (1) the Commission may authorize such service pursuant to Section 271(d)(3); (2) the service may have been previously authorized within the meaning of 271(f); or (3) the service may be an incidental interLATA service under Section 271(g). 47 U.S.C. § 271(b). In the case of the BOC requests, the advanced services in question have not been previously authorized and are not incidental interLATA services.<sup>37</sup>

Moreover, under the Modified Final Judgment (MFJ), which had its central prohibitions against BOC entry into in-region interLATA service codified at Section 271 of the 1996 Act, restrictions against BOC entry into certain services were to be lifted only upon a BOC's showing that "there is no substantial possibility that it could use its monopoly power to impede competition in the market it seeks to enter."<sup>38</sup> In order to maintain the important pro-competitive

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<sup>36</sup> See In the Matters of Bell Operating Companies Petitions for Forbearance from the Application of Section 272 of the Communications Act of 1934, As Amended, to Certain Activities, CC Docket No. 96-149, DA 98-220 (rel. Feb. 6, 1998).

<sup>37</sup> Section 271(g), which defines incidental interLATA services, refers to Internet services at Section 271(g)(2), illustrating the point that the service in Bell Atlantic's petition does not meet the incidental interLATA service exemption. The single Internet exemption under incidental interLATA services is for "Internet services over dedicated facilities to or for elementary and secondary schools." 47 U.S.C. § 271(g)(2). Accordingly, all other Internet services are beyond the scope of the incidental interLATA exemption.

<sup>38</sup> United States v. Western Elec. Co., 552 F. Supp. 131, 231 (D.D.C. 1982), aff'd sub nom. Maryland v. United States, 460 U.S. 1001 (1983).

restrictions that were contained in the MFJ and subsequently codified in the Act, the Commission cannot permit the BOC monopolies to exercise exclusive control over network development by seeking exclusive rights to new technologies.

Because Bell Atlantic and other BOCs are foreclosed from providing in-region interLATA service under Section 271(f) and (g), they therefore, can provide such in-region interLATA service only with the Commission's authorization pursuant to Section 271(d)(3). In the above-referenced order, the Commission stated that "prior to their full implementation [the Commission] lack[s] authority to forbear from application of the requirements of section 272 to any service for which the BOC must obtain prior authorization under section 271(d)(3)."<sup>39</sup> Accordingly, because the forbearance request by Bell Atlantic involves specific forbearance from the strict prohibitions against BOC provision of in-region interLATA services under Section 271, the Commission cannot grant such forbearance pursuant to Section 271(d)(3)(B) prior to the Bell Atlantic's receipt of in-region interLATA authority under Section 271. In other words, forbearance from Section 272 is impermissible because Section 271(d)(3)(B) requires a showing that a BOC seeking 271 in-region authorization must show compliance with Section 272.

**C. Elimination of LATA Boundaries Would Nullify the Vital Competitive Safeguards and Restrictions of Section 271**

Similarly, Bell Atlantic's requests for modifying LATA boundaries cannot be granted by the Commission.<sup>40</sup> Although Bell Atlantic states that the Commission has authority to modify LATA boundaries, its request calls for more than mere modification. Bell Atlantic's requests for modification are more accurately requests for an elimination of LATA boundaries. To grant the

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<sup>39</sup> See *supra* note 35 at para. 22.

<sup>40</sup> See Bell Atlantic Petition at 11.

LATA forbearance requested by Bell Atlantic would amount to nothing more than circumvention of the competitive safeguards of Section 271 of the Act.

The Commission has ruled that because Section 10(d) of the Act prohibits forbearance from Section 271 of the Act, it may modify LATA boundaries only for limited purposes that do not disturb the delicate procompetitive purposes behind the existing intrastate LATA boundaries.<sup>41</sup> The Commission has held also that LATA boundaries serve as a powerful incentive to the BOCs to open their local markets, and the BOC must satisfy the substantive requirements of Section 271 to receive interLATA relief.<sup>42</sup>

Further, the Commission has declared that BOCs should not be granted LATA boundary waivers “that could permit a ‘piecemeal dismantling’ of the prohibition on the BOCs’ provision of interLATA service.”<sup>43</sup> By granting the BOCs’ requests for LATA elimination, the Commission would permit the BOCs to circumvent Section 271 of the Act, thereby eliminating a central competitive provision of the Act. In addition, the Commission would be ill-advised to grant such forbearance, particularly in light of the fact that the services to which Bell Atlantic refers may be used for voice communications.<sup>44</sup> While it may be some time before one of the

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<sup>41</sup> See In the Matter of Petition for Declaratory Ruling Regarding US West Petitions to Consolidate LATAs in Minnesota and Arizona, NSD-L-97-6, DA 97-767 (released April 21, 1997).

<sup>42</sup> Id. at para. 28.

<sup>43</sup> Id. at para. 27 (citing United States v. Western Elec. Co., Inc., No. 82-0192, slip op. at 3 n. 8 (D.D.C. May 18, 1983)).

<sup>44</sup> See Telephony, February 16, 1998, “The Time is Now -- Swim and Survive Fast,” “A natural point of entry for incumbent LECs into Internet telephony is through their own ISP subsidiaries. IP telephony product vendors confirm that they are talking with our have already sold gear to the market players.”

BOCs receives 271 authority from the Commission, the use of high-speed switched broadband capabilities -- particularly the Internet -- for voice communications is already a reality. Thus, if the requested relief were granted by the Commission, Bell Atlantic would be able to provide voice communications, including in-region interLATA service, prior to meeting the requirements mandated by the Act under Section 271.

**V. BELL ATLANTIC'S BOTTLENECK CONTROL OF THE LOCAL LOOP AND OVERPRICING OF ACCESS ARE THE REAL PROBLEMS OF INTERNET ACCESS**

Bell Atlantic, echoed by US West and Ameritech, is wholly incorrect in its assertion that congestion on the existing data networks is the result of a lack of investment and limited capacity of backbone networks.<sup>45</sup> Bell Atlantic uses this proceeding to litigate the proposed MCI-WorldCom merger. There is no evidence of underinvestment in Internet facilities in the Northeast and there is no general shortage of Internet capacity as the BOCs claim. While there is an increasing demand for Internet backbone bandwidth, it is not a demand that can only be met by the BOCs. Indeed, the real problem does not stem from the lack of backbone, but instead from the BOCs' control of the local loop -- the only way to access the Internet. The Internet does not operate in a vacuum, as the BOCs would have the Commission believe; it is tied to the public switched network that BOCs control. Bell Atlantic and other BOCs control the last mile, between the customer and the switch.

**A. There is an Abundance of Investment in Internet Backbone Services**

As MCI demonstrated in the Commission's proceeding on the merger of MCI and

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<sup>45</sup> Bell Atlantic Petition at 13.

WorldCom,<sup>46</sup> competition to provide Internet backbone services is as vibrant as competition to provide the interexchange telecommunications services supported by telecommunications transmission facilities. Factors such as competing providers, low barriers to entry, continued exponential growth, and a protocol designed to provide flexibility and accommodate change, serve to ensure that no one company could conceivably dominate the provision of Internet backbone services. Not only is Bell Atlantic using its Section 706 petition as another opportunity to assail the proposed merger of MCI and WorldCom, but it is also using the merger as a stepping-stone for regulatory relief.<sup>47</sup>

Despite Bell Atlantic's characterization of the Internet marketplace, not only is there increasing Internet capacity, many new national fiber networks are underway to satisfy increasing demand for bandwidth. Companies such as Qwest, IXC, Level 3 and others continue to invest in building national broadband networks without special government incentives.<sup>48</sup> As reported in *Teleography*, 1997-98, there are 32 backbone providers in North America, and the number of U.S. national Internet backbone providers has grown from 9 in the summer of 1996, to 22 by May, 1997, and to 37 by the Fall, 1997.<sup>49</sup> Further, numerous ISPs, in addition to MCI, operate backbone networks, and like MCI, have also expanded, and continue to expand, their backbone network.

The provision of Internet-based services is characterized by dynamic change, rapid

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<sup>46</sup> Joint Reply Comments of WorldCom, Inc. and MCI Communications Corporation, Docket No. 97-211 at 65-90 (filed Jan. 26, 1998) (Joint Reply Comments).

<sup>47</sup> Bell Atlantic Petition at 13.

<sup>48</sup> Joint Reply Comments, Sider Declaration at 16.

<sup>49</sup> Joint Reply Comments at 74, citing *Boardwatch Magazine*, May/June, Fall 1997.

growth and ease of entry. This structure makes bottleneck control by ISP backbone providers virtually impossible. GTE, for example, has widely advertised the fact that it is “developing a 15,000 mile data network stretching from the eastern seaboard to the California coast” that it claims will expand the GTE backbone to “100 times” the size of today’s Internet.<sup>50</sup> Similarly, Apex Global Internet Services (AGIS) recently announced that it has acquired the right to use a 10,000-mile fiber optic cable from Qwest Communications that will enable AGIS to provide Internet service connections across the United States.<sup>51</sup> Further, PSINet obtained access to the 10,000 mile OC-48 fiber network that is being constructed by IXC Internet Services.

The market for Internet backbone services is currently competitive and no barriers limit the ability of firms other than the BOCs to enter. As a result, there is no reason to expect any market failure - to expect that current competitors and new entrants are investing too little in backbone services. If the current providers are not providing good service, that creates a competitive opportunity that new entrants can and will take advantage of. If there have been any capacity constraints, it is not for lack of investment but because exponential growth in Internet usage has surpassed expectations, but supply is generally keeping up with demand. The same opportunities and incentives that the BOCs claim motivate them motivate dozens of other firms, and there is no reason to believe that they cannot do at least as good a job as the BOCs - and without threatening competition through control of the loop.<sup>52</sup>

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<sup>50</sup> *Id.*, citing *The Wall Street Journal*, Jan. 7, 1998, advertisement at pp. A8-A9.

<sup>51</sup> *Id.*, citing “AGIS to Enter National Market Through \$260 Million Deal,” *The Detroit News*, Jan. 7, 1998.

<sup>52</sup> It is worth noting that Ameritech, at page 24 of its Petition, states that “[a] new entrant . . . is no less able to construct new broadband facilities than is an incumbent LEC” and “[t]he incumbent has no advantage because of any existing infrastructure or incumbent status.”



**B. The Commission Must Allow the Requirements of Sections 251(c ) and 271 to be Fully Implemented before it Forbears from Applying Significant Portions of the Act**

The Commission should focus its efforts on the introduction of local market competition. If there is a lack of investment, it is in the loop, where Bell Atlantic and other BOCs have failed to make high-speed local access services available to end users or to competing providers. The slow speed of the BOCs' local offerings is the bottleneck, not the high-speed backbone. Indeed, Commissioner Susan Ness, in discussing the challenge of bandwidth, acknowledged that multiple providers are making massive investments in the Internet backbone in order to meet increasing demand. More significantly, she stated that "[a]lthough some proceedings before the Commission raise issues involving Internet backbones, I see greater urgency in the problem of congestion in the facilities connecting [subscribers] to the Internet. . . . the single most important thing we can do to promote bandwidth in the 'last mile' to the home is to accelerate competition among multiple providers" by breaking open the local telephone monopolies.<sup>53</sup> Requiring the BOCs to provide reasonable access to the capabilities within their monopoly local networks at cost-based rates could only help facilitate local competition. The local loop facilities that need to be unbundled are not inherently dedicated to particular services or technologies, such as analog "POTS," "ISDN," "xDSL," or narrowband technologies.

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Ameritech's statement is misleading in that any validity it may have in the context of Internet backbone networks does not apply with regard to xDSL loops. Because xDSL loops are nothing more than existing copper loops with modified electronics, an incumbent does have an advantage due to its existing infrastructure.

<sup>53</sup> FCC News Release, "FCC Commissioner Susan Ness Calls For Continuation of "Internet-Friendly" FCC Policies, at 6 (released February 10, 1998).

If the BOCs do not unbundle the conditioned loop, they will have the ability to increase costs for customers and competitors. Thus, if the BOC employs a single technology, and ISPs or customers decide they want something different, customers will have very limited service and access choices. MCI and other competitors lose access to the customer and the ability to offer local services as well as end-to-end services if the BOCs have exclusive control over the technology and loop for the xDSL services. New entrants would therefore need access to the unbundled copper loop and the xDSL conditioned loop.

Moreover, if Bell Atlantic and other BOCs are not required to provide reasonable access to capabilities within their monopoly local networks, there is an increased risk of discrimination and cross-subsidization of the BOCs' interLATA backbone network. All of the dangers that section 271 is supposed to protect against with respect to their interLATA networks would be triggered. As stated above, the same network that carries voice traffic, also carries data traffic. The BOCs' interLATA Internet backbone can get favorable treatment from the local operations and thus, discrimination and cross-subsidization becomes a distinct likelihood. These already substantial dangers are exacerbated if the BOC provides local and interLATA services on an integrated basis without creating a separate affiliate pursuant to section 272.

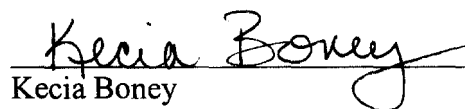
The BOCs are simply looking for a way to deflect attention from its overpricing and monopoly on the local loop. Any delays are not related to the backbone but to the access lines controlled by the BOCs. Bell Atlantic and the other petitioners essentially want unregulated monopoly power over that bottleneck.

## CONCLUSION

For the foregoing reasons, MCI urges the Commission to reject the petitioners' requests for regulatory forbearance.

Respectfully submitted,

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## **Exhibit No. 1**

**The Path Not Yet Taken: User-driven Innovation and US Telecommunications  
Policy**

**by François Bar and Michael Borrus**

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**The Path Not Yet Taken: User-driven Innovation and US Telecommunications Policy**

**by François Bar and Michael Borrus**

US telecommunications policy stands at a critical juncture. On one side mass new entrants and long-suffering customers, eager for the kind of affordable and flexible access to the local telecommunications network that would permit them to innovate and influence network development. On the other side, incumbent dominant carriers dig-in, seeking to retain sole control of network development in order to shape demand to their own capabilities and needs. Should US policy embrace the incumbents' promise of increased innovation if only the regulations requiring affordable and flexible access to dominant carrier networks are loosened? Or should US policy embrace a new demand-side passion for a new century: This paper argues that *user-driven innovation* is already the distinguishing characteristic of the information economy and should be the explicit focus of US policy.

Regulatory policies that promote the widest possible user choice and the greatest opportunities for users to interact with the myriad of emerging new entrants will set in motion a virtuous cycle, generating substantially increased innovation, new service and infrastructure development, increased network usage, and, consequently, growing economic benefits for the US economy. By contrast, relaxing or eliminating regulatory policies that promote affordable and flexible access to incumbent carrier networks will, at best, result in marginal supply-side innovation; but the resulting exclusive control of network development by incumbents risks frustrating the network experimentation and learning by users that is necessary to reap the economic returns promised by information technology.

Continued affordable and flexible access to the networks of dominant incumbents ensures that a vibrant market competition will emerge to meet the diversity of user needs. That kind of vibrant competition is the only means to navigate the profound, discontinuous technological and economic changes currently being experienced as digital information infrastructures emerge. Market competition is not an end in itself, although the US debate sometimes suggests otherwise. It is, rather, a means to generate and capture new opportunities for user-driven industrial innovation opened by the new

information technologies. It is impossible to predict either what the value-generating new uses of information technologies will be, or what optimum network and market structures are necessary to deliver them to users. In those circumstances, a vibrant market competition that favors new entry and new strategies provides a decentralized logic for making technological and economic choices under conditions of substantial uncertainty. It creates a mechanism for the discovery of answers that are more likely to be right over time, without the need for policy-makers to predict outcomes or to be omniscient.

We make the case in three steps. First we recount how discontinuities in telecommunications technology, usage, and supply result in user-driven innovation, and have already pushed the FCC toward policies that enable user-driven innovation, but that need fuller elaboration and support by the US government. Next we explain the economic rationale for this shift. Last, we show how policy that continues to provide flexible access to incumbent networks will help to realize the shift to policies that fully embrace user-driven innovation.

### **Telecommunications at a Time of Discontinuities**

The explosive commercialization of the Internet hints at how emerging digital infrastructures can spur a host of new economic opportunities which blur traditionally neat economic and industrial lines. Indeed, far from a smooth "upgrade" of today's telephone, data, broadcast and print networks and the patterns of economic and social relations that rely on them, the transition to digital information infrastructures is proving to be highly discontinuous with established industrial practices, business models and governance structures.

Wherever development of new networking possibilities is most enabled by flexible and affordable end-user access to facilities, services and networks, as for example on the Internet or in the corporate networks of major multinational firms, four sources of discontinuity are visible and are increasingly familiar:

- Drastic changes in the technological capabilities of the underlying network platforms (e.g., with digitization and new computer architectures, broadband, compression, xDSL and cable modems, wireless technology, and innovations in network

management)

- Major shifts in usage and explosive traffic growth combined with wholly new patterns of communication (e.g., cooperative computing, 'point-casting' and other 'push' applications, browsers, agents and applets, multimedia MUDs -- all involving non-traditional combinations of synchronous, asynchronous, and isochronous interaction)<sup>1</sup>
- Evisceration of competitive boundaries between traditionally distinct sectors or between traditionally distinct sub-segments within sectors (e.g., between computing, communications, and mass media, between telecommunications carriers and CATV, between wireless and wireline, between print and networked information delivery)
- As a consequence of the preceding three, a shift in the balance of power shaping the evolutionary trajectory of information infrastructures from the supply to the demand side, from providers to users as drivers of network evolution.

The Java-equipped, VRML-enabled, World Wide Web is both a product and perfect expression of these discontinuities.<sup>2</sup> It is based on the technological shift toward client-server architectures and object-orientation in computing, the digitized integration

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<sup>1</sup>Cooperative computing is the shared use of dispersed computing resources to accomplish a common purpose by physically remote users as in the development of an auto subsystem (e.g., antilock brakes) where designers in several different locations may be simultaneously working on and modifying the database that describes the subsystem for computer-aided design purposes -- any change made by one to the common database must be simultaneously reflected in the work of all, hence the computing is shared and cooperative. Pointcasting is the broadcast of information tailored to individual or small group preferences (in contrast to traditional broadcasting which features the broadcast of undifferentiated information to a mass audience; in contrast to browsing (defined below), it is an example of 'push' technology in which information (e.g., a new software revision) is pushed out to end-users according to preferences they specify rather than being actively searched for and discovered. Browsers like Netscape Navigator are interfaces that facilitate access to information embedded in databases in a manner analogous to browsing for goods in a department store; agents are software tools that automatically sift through databases looking for specific kinds of information specified by a user; applets are self-contained, executable software routines that carry with them both a specific application and the operating instructions necessary to execute it. A MUD, or multi-user domain, is a virtual meeting place where on-line computer users gather to interact -- in simplest form an on-line chat room, in most elaborate form a virtual reality world.

<sup>2</sup>Java is a programming language developed by SUN Microsystems which permits World Wide Web applications to 'come alive' through applets, thus permitting animation, continuous updating and an endless variety of other non-static functions. Java is machine-independent, i.e., applets written in Java can be interpreted or compiled to any computer platform. VRML or Virtual Reality Mark-up Language permits the Web to provide a 3-D experience (like rotating objects to see all sides), and is one of the emerging complements to Hyper-Text Mark-up Language (HTML), the basic language used to create Web documents.



of information formats and availability of higher bandwidth. It enables wholly new patterns of communication that neither traditional broadcast nor telephony could possibly have delivered (i.e., Web applications are neither broadband phone calls nor interactive TV). It blurs mass media, computing and communications in ways that profoundly challenge established suppliers in each of those domains -- as even mighty Microsoft discovered.

The Web's evolution is driven almost entirely by its users who have pioneered all of the new emerging applications -- a distinct departure from the supply-centric traditional model in which a dominant carrier or broadcaster offers a limited menu of service options to subscribers. In the bargain, the Web transcends national boundaries, has fostered applications in every imaginable industry, and has spread like wildfire since its primitive origins in the search for Higgs' Boson at Europe's CERN.

The Web would never have emerged as a service conceived and provided by a single dominant phone company or TV broadcaster. Indeed, profound, discontinuous technological changes like those currently experienced in telecommunications make it impossible to predict either what the value-generating new uses will be or what optimum network and market structures are necessary to deliver them to users. Rather, the uses and optimal structures can only be effectively determined under such conditions of extreme economic and technological uncertainty, through decentralized processes of trial and error, experimentation and learning-by-doing, search and discovery.

Such user-centered processes for generating innovation can only flourish in an environment in which users are granted access to a wide range of choices of facilities, services, networks and network elements. In fact, US policy has gradually, though not always intentionally and still incompletely, been moving toward support of the new user-driven innovation paradigm. The major regulatory decisions taken by the FCC over the past 40 years shifted the impetus for telecommunications innovation from incumbent carriers to network users, alternative equipment suppliers and new entrants. Policies and proceedings like the Specialized Common Carrier, Carterphone, Execunet and Open Skies decisions, and the first and second Computer Inquiries, permitted new entry into equipment, network and service provision. Crucially, they simultaneously protected the